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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/584,209	07/09/2007	Peter William Stanier	121629-06072630	9705
20583	7590	12/09/2008		
JONES DAY 222 EAST 41ST ST NEW YORK, NY 10017			EXAMINER NATHAN, SHYAM	
			ART UNIT	PAPER NUMBER
			1611	
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			12/09/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/584,209	<b>Applicant(s)</b> STANIER ET AL.	
	<b>Examiner</b> SHYAM NATHAN	<b>Art Unit</b> 1611	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 09 July 2007.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-40 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-40 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>06/23/2006, 06/27/2008, 10/06/2008</u>                        | 6) <input type="checkbox"/> Other: _____                          |



### **DETAILED ACTION**

Claims 1-40 are pending in this Office Action. This is the first Office Action on the merits of the claims,

#### ***Priority***

The earliest effective U.S. filing date afforded the instantly claimed invention is 1/05/2005, the filing date of application PCT/GB05/00004.

#### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-8,11-18, 23, 25, 33-37, 39-40 rejected under 35 U.S.C. 102(b) as being anticipated by Araya (WO 01/94512; Issued Dec.13,2001) .

Instant claims 1-8,11-18, 23, 25, 33-37, 39-40 are drawn to a dentifrice composition comprising a crystalline alumino-silicate having an average size below 0.2 Microns.

Araya teaches of a dentifrice zeolite composition comprising a P-zeolite, which are crystalline aluminosilicates (page 1, lines 1-30 and claim 3), with an average crystallite/weight mean particle size between 0.1-20 Microns(page 3,

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lines 28-31 and claim 5), with a general empirical formula  $M_{2/n}O \cdot Al_2O_3 \cdot xSiO_2 \cdot yH_2O$  (page 1, lines 25-28). The P-zeolite described by Araya with the empirical formula above has an x value in the range 1.8 to 2.66 (page 2, lines 30-35), wherein M is an alkali metal that can be exchanged for one or more other metal moieties (page 2, lines 15-17). Araya, also, teaches of Zeolite X or A (page 2, lines 26-30) that could be used as a cleaning booster/agent (page 5, lines 10-20), that would also have a crystallite/weight mean particle size between 0.1-20 Microns (page 3, lines 28-31 and claim 5). Araya also teaches of other detergent builder materials that could be used in the composition (pages 5 and 6). Araya teaches that the aluminosilicate zeolite can be found in the composition at about 35% weight (page 13, lines 5-15, ex. 4).

Furthermore, the RDA, PAV, and  $FT_{100}$  values, of instant claims 11, 12, 21-25, 39-40, as well as the calcium binding and oil absorption values of the aluminosilicate in instant claims 13-14, 26-27 would be inherent to the composition described in Araya. *Where applicant claims a composition in terms of a function, property or characteristic and the composition of the prior art is the same as that of the claim but the function is not explicitly disclosed by the reference, the examiner may make a rejection under 35 U.S.C. 102. In re Best, 562 F.2d 1252, 1255 n.4, 195 USPQ 430, 433 n.4 (CCPA 1977)*

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 19-22,24,26,27,28,29,30,31,32,37,38 rejected under 35 U.S.C. 103(a) as being unpatentable over Araya (WO 01/94512; Issued Dec.13,2001) .

Claims 19-22,24,26,27,28,29,30,31,32,37,38 are drawn to a dental composition as claimed in instant claim 1 containing at least one additional abrasive cleaning agent, which comprises a different crystalline aluminosilicate, which acts as a cleaning booster.

Araya teaches a dentifrice composition of Zeolite X or A (page 2, lines 26-30), that have a different structure than zeolite P, that could be used as a cleaning booster/agent (page 5, lines 10-20) and could act as an additional abrasive cleaning agent as described in instant claim 19, that would also have a crystallite/weight mean particle size between 0.1-20 Microns(page 3, lines 28-31

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and claim 5). Araya also teaches of other detergent builder materials that could be used in the composition (pages 5 and 6).

Although Araya suggests the use of Zeolite X or A in the composition, it is not immediately envisaged and therefore, the instant rejection is made under obviousness.

However it would have been obvious to one of ordinary skill in the art at the time the invention was made to look at the guidance provided by Araya and incorporate Zeolite X or A in the composition because Araya states that Zeolite X, A are suitable for use in the composition (page 2, lines 26-30, claim 3). One would have been motivated to do so because Zeolite X,A can substitute for other cleaning agents such as aluminum sulfate or sodium carbonate.

The RDA, PAV, and FT<sub>100</sub> values , of instant claims 19-22,24,26,27,28,29,30,31,32,37,38 as well as the calcium binding and oil absorption values of the aluminosilicate would be inherent to the composition described in Araya. *Since the prior art discloses the same compound as claimed, the properties of the compound are inherent.* A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present. *In re Spada*, 911 F.2d 705, 709, 15 USPQ2d 1655, 1658 (Fed. Cir. 1990)

Futhermore, because Zeolite X,A can substitute for other cleaning agents such as aluminum sulfate or sodium carbonate the percent weights of Zeolite X and/or

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A can be either 5% or 15% of the total composition (page 13, ex. 4). Which would make the ratio of Zeolite P (page 13, ex 4, zeolite (Doucil A24) is 35%): Zeolite X and/or A 7:1 or 7:5. Regarding the relative **amount of cleaning booster (Zeolite X and/or A)** recited in Applicants' dependent claims; the **amount of cleaning booster (Zeolite X and/or A)** in a composition is clearly a result effective parameter that a person of ordinary skill in the art would routinely optimize, depending on how much cleaning action one desires in a dental composition (higher the amount of cleaning booster-higher the cleaning action, lower the amount of cleaning booster-lower the cleaning action). Optimization of parameters is a routine practice that would be obvious for a person of ordinary skill in the art to employ. It would have been customary for an artisan of ordinary skill to determine the optimal **amount cleaning booster (Zeolite X and/or A)** needed to achieve the desired results. Thus, absent some demonstration of unexpected results from the claimed parameters, the optimization of **cleaning booster (Zeolite X and/or A)** would have been obvious at the time of applicant's invention.

Claims 9-10 rejected under 35 U.S.C. 103(a) as being unpatentable over Araya (WO 01/94512; Issued Dec.13,2001) and Glemza et al. (GB 2082454; Issued Aug.21, 1980) .



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Instant claims 9-10 are drawn to a dentifrice composition as claimed in claim 1 in which the average crystallite size of the aluminosilicate is less than 0.1 Microns.

Araya teaches of a dentifrice composition of Zeolite X or A (page 2, lines 26-30) that could be used as a cleaning booster/agent (page 5, lines 10-20), that would also have a crystallite/weight mean particle size between 0.1-20 Microns (page 3, lines 28-31 and claim 5). Araya also teaches of other detergent builder materials that could be used in the composition (pages 5 and 6). But Araya does not teach the average size of the aluminosilicate less than 0.1 Microns

Glemza teaches of a dentifrice composition which contains a zeolite that can be alumina-silica that has an average crystal size of less than 1 Micron (page 1, lines 1-40).

It would have been obvious to a person of ordinary skill in the art at the time the invention was made to have combined the teachings of Araya and Glemza because both inventions are drawn to dentifrice compositions containing zeolites. One would have been motivated to do so because Glemza teaches that crystals less than .1 Microns has the characteristic of removing stains from teeth without abrading the enamel or dentine surfaces (page 1, lines 27-33).

Conclusion:

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to SHYAM NATHAN whose telephone number is (571)270-5753. The examiner can normally be reached on Mon-Thurs 8:30a.m. - 5:00p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Sharmila Landau can be reached on 571-272-0614. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SN

/Sharmila Gollamudi Landau/

Supervisory Patent Examiner, Art Unit 1611

